The Impact COVID-19 Has on Access to Patient Care: A Case Report

Katie Evans, SPT; Research Mentor: Kimber Kurr, PT, DPT, CBISt

ITHACA COLLEGE
Department of Physical Therapy

Introduction

- The novel coronavirus (COVID-19) pandemic has created a universal shock not previously seen by our generation.
- Hospitals are reaching maximum capacity.
- Elective surgeries are being put on hold, with 28,404,603 operations estimated to be cancelled or postponed during the pandemic.[1] This is due to the limited number of operating rooms available, the repurposing of healthcare staff to COVID-19 units, and the conservation of personal protective equipment for health professionals treating COVID-19 directly.
- Skilled nursing facilities (SNF) are barring visitors and establishing infection control measures that prohibit residents from engaging in community activities,[2] which has a detrimental impact on the residents' physical and mental health
- The referral and admission of the non–COVID-19 patient has been difficult due to the federal recommendations for staying at home to reduce virus prevalence, and the fear associated with contracting COVID-19 in a hospital may prevent patient referrals and admissions.[3]
- The healthcare system is focused on treating and preventing the spread of COVID-19, non-COVID-19 patients are being disregarded. [3]
- The purpose of this case report is to identify concerns in a patient with an abnormal presentation of spinal stenosis and discuss how this patient's access to quality care was affected by the pandemic.

Case Description

- 91-year-old male presented to a SNF following hospital admission after sudden onset of paralysis in the left lower extremity
- Magnetic resonance imaging (MRI) indicated cervical and lumbar stenosis
- The patient was sent for an orthopedic consult
- Thoracic spine MRI was completed which offered limited evaluation due to motion artifact and difficulty with patient positioning.
- The orthopedist did not recommend any acute intervention, referral to other specialties, or further imaging

Examination

- Prior level of function: independent at home
- Past medical history: hypertension, gout, a left great toe amputation secondary to osteomyelitis, and bladder cancer resulting in a tumor resection in 2012
- Bilateral upper extremity strength 5/5
- 8/10 pain in lower thoracic/upper lumbar region, radiating down posterior aspect of thighs to ankles
- Non-ambulatory
- Dependent for bed mobility and transfers
- Red and yellow flags were found that generated concerns regarding the presence of an underlying pathology.
- Table 1 illustrates a summary of abnormal findings upon examination

Evaluation

- *Impairments:* Decreased bilateral lower extremity (LE) strength, impaired seated balance, pain, incontinence
- *Activity Limitations*: Inability to perform independent transfers, bed mobility, and ambulation skills, as well as perform basic activities of daily living
- *Prognosis:* Fair as evidenced by the patient's age, motivation to get better, prior level of function, sudden onset of symptoms, and lack of family presence secondary to COVID-19.
- *Plan of Care:* 5 times a week for 6 weeks, 30 minutes per day

Table 1. Abnormal findings upon initial examination

	Findings		
Strength		Right Limb	Left Limb
	Hip Flexion	2+/5	2/5
	Hip Extension	2+/5	2-/5
	Hip Internal Rotation	2/5	1/5
	Hip External Rotation	2/5	0/5
	Hip Abduction	2-/5	0/5
	Hip Adduction	2-/5	1/5
	Knee Flexion	2/5	1/5
	Knee Extension	2/5	0/5
	Ankle Dorsiflexion	2/5	0/5
	Ankle Plantarflexion	2/5	1/5
Tone	Bilateral LE: Hypotonic		
Balance	Static/dynamic sitting balance: Poor Unable to test standing balance		
Gait	Total Dependent		
Transfers	Total Dependent		
Bed Mobility	Total Dependent		
Bladder and Bowel	Episodes of incontinence especially during moments of exertion		

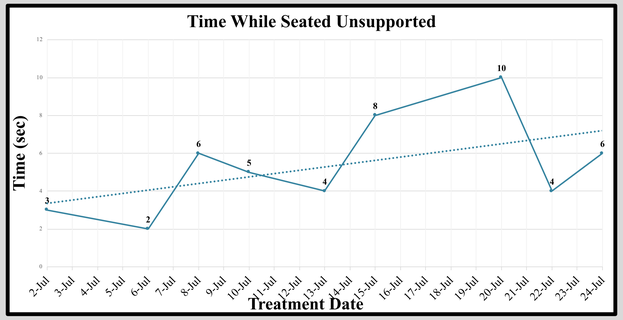

Figure 1. Time in unsupported sitting

Table 2. Areas of concern

Areas of Concern	Explanation
Sudden Onset of Symptoms and Drastic Change from Prior Level of Function	➢ Patient experienced mild radiating pain down left LE without motor involvement 3 months prior to evaluation ➢ Patient was living independently prior to sudden onset of symptoms ➢ Patient had sudden onset of motor loss in trunk and lower extremities and sudden loss of bowel and bladder control
Past Medical History	➢ History of bladder cancer ○ ~75% of patients diagnosed with bladder cancer will have reoccurrence within 10 years of diagnosis.[4] Some of the most common sites for metastasis are in the bone and brain.[5]
Diagnosis	➢ Degenerative changes in the spine typically present with the gradual progressive onset of symptoms, as opposed to the sudden onset seen in this patient
Artifacts on Imaging	➢ Motion artifacts reduce image quality and interfere with image interpretation and diagnosis.
Initial Care Received at the Hospital	➢ Despite diagnosis, presentation of sudden motor loss should warrant action of acute surgical intervention to decompress spinal cord. ➢ Lumbar decompression is considered the recommended treatment when there is sudden loss of bowel and bladder control along with severe motor loss impairing quality of life and independence for mobility.[6]

Outcomes

- After 3 weeks of conservative physical therapy, the patient displayed no major systemic improvement
- There was a small positive but inconsistent trend in time he was able to balance in unsupported sitting with minimal improvement in trunk control.
- Numeric Pain Rating Scale at the end of week 3 was 7/10 which fell short of a minimally clinically important difference (MCID)
- Minimal improvement of gross lower extremity strength to 2+/5 of the left and a 3+/5 on the right.
- Improved participation in bed mobility, to a modified independent level with a bedrail, moderate to maximal assistance without a bed rail.
- Minimal improvement in transfers, dependent to maximum assist level
- Total assistance to ambulate.

Discussion

- Concern was raised due to lack of progress despite 3 weeks of intervention
  - Table 2 describes each concerning factor
- It is evident that this patient did not receive the highest quality of care resulting in a lack of full workup before arriving to the SNF. The SNF care team still determined the risks of COVID-19 to outweigh the benefit of referral to a specialist.
- COVID-19 had profound implications on this patient's access to care.
- Clinician burnout could have led to this patient being overlooked.
- Shortage of hospital beds, and operating rooms being set aside for emergency surgeries only may have played a role in this patient being transferred to a SNF without thorough workup.
- Once the patient was at the SNF, the COVID-19 protocols along with the increased risk for infecting a vulnerable population left the care team apprehensive to refer out.

Conclusion

- While the healthcare system is currently focusing on the pandemic, failure to attend to non-COVID-19 patients who need acute medical care can lead to unnecessary complications for these patients.[3]
- Investing in technology, like Telehealth, can help improve access to medical specialists and assist in determining if patients need additional care or referral for further testing
- Proper training for healthcare professionals on when to use telehealth, and how to properly administer this important service is crucial
- There is a greater prevalence of coronavirus-related generalized anxiety in both patients and in healthcare workers.[3] It is important to educate healthcare workers on proper decision making during the pandemic to ease anxiety and maintain a high standard for patients in need of care.

References

1. COVIDSurg Collaborative. Elective surgery cancellations due to the COVID-19 pandemic: global predictive modelling to inform surgical recovery plans. *Br J Surg*. 2020 May 12. doi:10.1002/bjs.11746.
2. Edelman LS, McConnell ES, Kennerly SM, Alderden J, Horn SD, Yap TL. Mitigating the effects of a pandemic: facilitating improved nursing home care delivery through technology. *JMIR Aging*. 2020 May 26;3(1):e20110. doi:10.2196/20110.
3. Zakeri MA, Dehghan M. The impact of the COVID-19 disease on the referral and admission of the non-COVID-19 patients. *Int J Health Plann Manage*. 2020 August 25. doi:10.1002/hpm.3060.
4. Chamie K, Litwin MS, Bassett JC, et al. Recurrence of high-risk bladder cancer: a population-based analysis. *Cancer*. 2013;119(17):3219-3227. doi:10.1002/cncr.28147.
5. Bianchi M, Roghmann F, Becker A, et al. Age-stratified distribution of metastatic sites in bladder cancer: A population-based analysis. *Can Urol Assoc J*. 2014;8(3-4):E148-E158. doi:10.5489/cuaj.787.
6. AANS. Lumbar Spinal Stenosis. https://www.aans.org/Patients/Neurosurgical-Conditions-and-Treatments/Lumbar-Spinal-Stenosis. Accessed October 6, 2020.